Nutrient-rich dairy, an affordable source of nutrition

- Dairy products are nutrient-rich foods as they offer a whole range of essential nutrients, including high quality protein, vitamins and minerals, but relatively few calories, contrary to nutrient-poor foods ('empty calories'). (1,2)
- Dairy products are important sources of essential nutrients and at the same time remain affordable. (6)

Dairy IS NATURALLY NUTRIENT-RICH
- Every food group contributes different nutrients in varying amounts to our diets. Milk, yoghurts and cheeses are all excellent sources of high quality protein, as well of calcium, phosphorous, potassium, iodine, vitamin B2 and B12. (1)
- Furthermore, dairy foods contain small amounts of vitamin A, niacin, folate, vitamin B6, vitamin D, magnesium, selenium and zinc. (1)
- Dairy products contain many essential nutrients per calorie (2,5) therefore dairy provides consumers with many nutrients coupled with relatively little calories. (Figure 1). Dairy foods are therefore considered to be highly nutrient-rich foods.
- Contrary to nutrient-poor foods ('empty calories'), nutrient-rich foods such as dairy are vital for a balanced and healthy diet. (2)

WHICH FOODS ARE NUTRIENT RICH AND WHY?
- The Nutrient Rich Foods (NRF) Index is a formal scoring system that ranks foods on the basis of their nutrient content.
- The NRF index is represented by the sum of the percentage of the daily values of 9 nutrients to encourage (protein, fibre, vitamin A, vitamin C, vitamin E, calcium, iron, magnesium, and potassium) minus the sum of the percentage of the maximum recommended values for 3 nutrients to limit (saturated fat, added sugar, and sodium).
- The higher the nutritional value of foods, the better their scores. (6,7)
- Along with calories and nutritional richness, the NRF index also considers affordability. (8)
- Dairy products score exceptionally well in the NRF index, which means they provide many essential nutrients, but relatively few calories, at affordable prices. (2,6,8)
- Recent studies suggest that individuals that consume more nutrient-rich foods such as dairy tend to have an overall lower energy (kcal) intake. (2)
Figures 2 and 3 show median NRF index scores plotted against energy density (kcal/100g) (Figure 2) and energy cost (kcal/1000kcal) (Figure 3) for 9 major food groups. The sizes of the bubbles denote the number of foods in each group. Analyses were based on 1387 foods in the US Department of Agriculture Food and Nutrient Database for Dietary Studies Source: Drewnowski, 2009 (6) Dairy foods (in dark blue), in particular milk and yoghurt, scored well, meaning that they provide excellent nutrition with limited caloric value and at affordable cost.

REFERENCES AND FURTHER READING
4. EMF. MILK, nutritious by nature [Internet]. European Milk Forum; 2017. Available from: www.milknutritiousbynature.eu